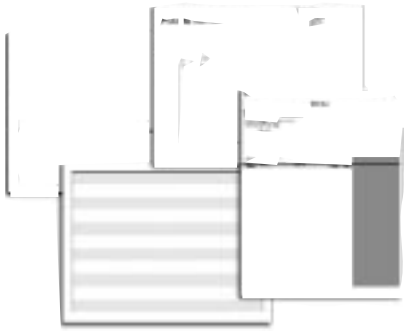




PlanetPress for QMS Print Systems

*The Intelligent Forms Solution
for Today's Business*

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Introduction

“Intelligent forms” give customers the quality and versatility they need when printing business-critical documents.

Pre-printed forms have been the backbone of business for years in both inter-office and business-to-customer communication. From invoices and shipping orders to customer files and payroll, this type of paperwork has become an inescapable reality in today's office. Unfortunately, using pre-printed forms and line printers often locks businesses into an inefficient and expensive two-printer system—a dedicated line printer for form-based information, and a separate laser printer for everyday office use.

Now there's a way for companies to gain control, reduce the cost, and enhance the quality of their forms printing without relying on pre-printed forms and without any changes to their application software. PlanetPress for QMS® Print Systems is a revolutionary new electronic forms package that lets your customers create and modify critical business forms and output them on a QMS print system. Using standard laser paper, users are able to produce laser-quality invoices, statements, records, MICR checks, Bar codes and more, eliminating the need for dedicated line printers and pre-printed forms and the costs associated with them.

PlanetPress enables the customer to:

- Regain control of critical business printing by putting forms design and modification in the hands of the customer
- Leverage existing computing platforms and applications to create a comprehensive solution for output management

- Streamline business processes by eliminating the storage, handling, and maintenance costs associated with preprinted forms and line printers
- Enjoy an easy-to-use design package with professional-looking documents on the front end while making significant improvements to high-volume back office printing applications

By combining PlanetPress with QMS' most advanced color and monochrome print systems, QMS provides your customers a complete, cost-effective solution for forms printing. As a replacement for aging line printers and pre-printed forms, QMS print systems will boost performance and significantly reduce printing costs. For general office applications, QMS print systems will give users the quality and reliability they need to successfully do their jobs.

PlanetPress Specifications

“Intelligent forms” read and format existing print streams to create professional looking business documents.

PlanetPress is an electronic forms design package that uses intelligent PostScript overlays to read and format original print stream data and images and print them on standard business paper using QMS print systems.

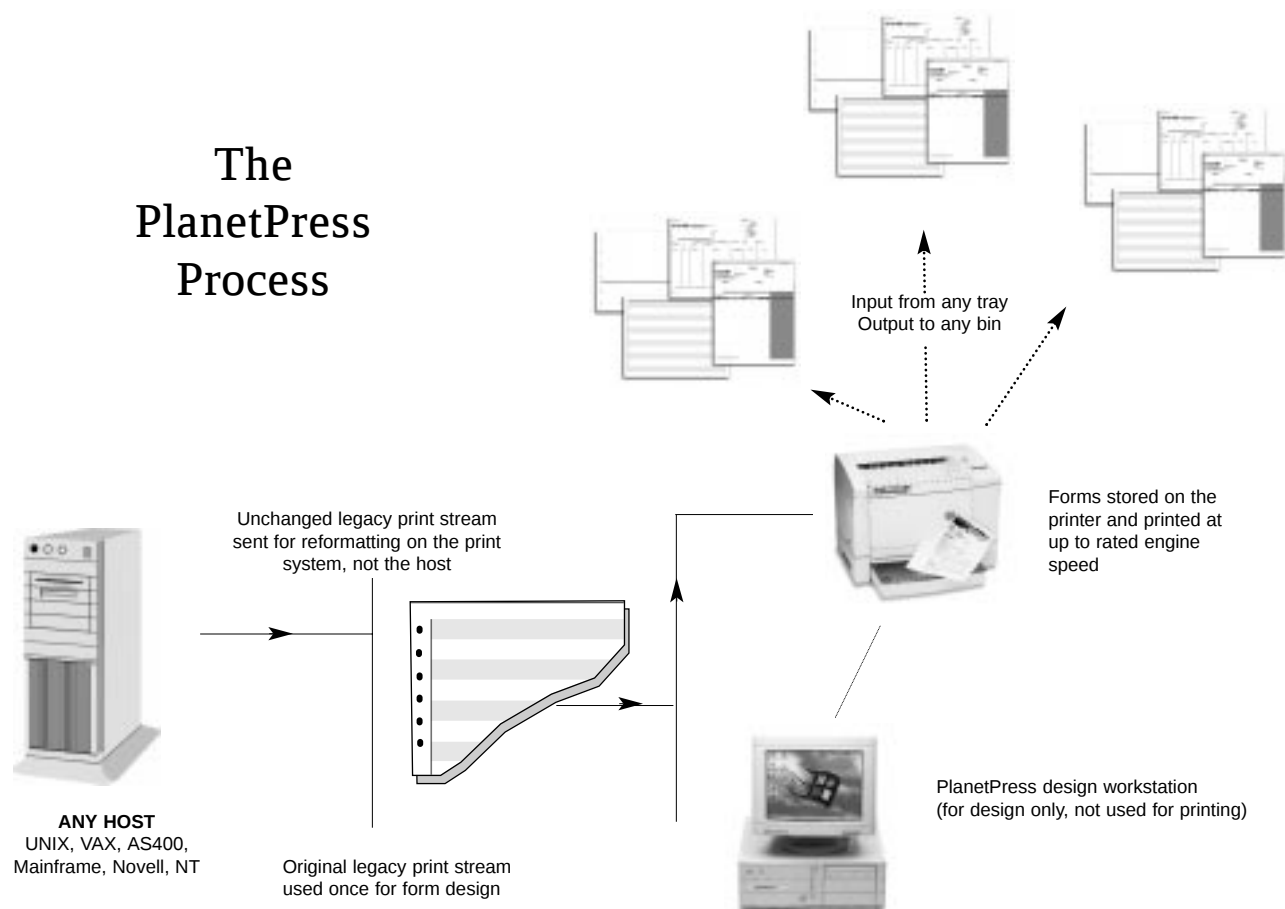
PlanetPress uses these “intelligent forms” to format information and assemble elements such as graphics and images as part of the form. This powerful feature allows the look and feel of a specific document to be controlled intelligently by form parameters.

Designed by PlanetPress’ Windows-based graphical forms creation tool, the intelligent form is a file that is easily downloaded to the QMS print system’s hard disk memory. A single line command at the beginning and the end of the print stream starts and stops the formatting carried out by the PlanetPress intelligent form.

Because the forms are printer-resident, PlanetPress requires no modifications to your customers’ current applications and no additional software or middleware.

In its most basic configuration, the customer’s current print data stream is sent to the QMS print system that has a PlanetPress intelligent form resident. The intelligent form merges the existing print stream and the form elements to create a quality laser printed form.

In a more sophisticated environment, the PlanetPress intelligent form will realize data and place it in a specific location on the page. It can also recognize when no data has been defined and will move on to the next section on the form. In more advanced environments, the form is able to determine where or even when to print the form. The intelligent form can then decide the number of copies to print, getting paper for each copy from different input bins and distributing the pages to different output bins. All the customer has to do is send his job in its existing format, and PlanetPress does the rest.



Features & Benefits

Eliminate the wasted time and money usually spent on pre-printed forms.

For customers who are looking to replace their existing line printers, PlanetPress can reduce the expenses associated with stocking and printing business forms. However, the benefits of PlanetPress to the overall office environment far surpass simply replacing pre-printed forms. Customers will see reduced overall expenses, increased efficiency, improved quality, and more complete control over the entire forms printing process.



REDUCED EXPENSES

On-Demand Printing

PlanetPress intelligent forms are created and printed where needed and when needed, rather than being pre-printed and warehoused. This process provides a constant, just-in-time inventory and eliminates the need for commercially printed forms.

Reduced Handling and Printer Costs

As labor costs increase, organizations looking to reduce operating expense view PlanetPress as an opportunity to eliminate handling costs such as ordering, shipping, warehousing, loading, bursting (separating), and financing of pre-printed forms.

As a replacement for aging line printers, PlanetPress will also reduce the high maintenance costs involved with keeping several dedicated line printers functioning properly.



Eliminate Waste

Because of the nature of continuous feed forms, industry experts estimate more than 10 percent is lost to waste. Since PlanetPress is designed to be used with standard business paper, this waste is completely eliminated.

Obsolete Form

One of the most frustrating aspects of preprinted forms is the need for the forms to keep up with business. Changes in business often make preprinted forms obsolete before they're even unpacked. PlanetPress's graphical design tools allow the user to update existing forms or create new forms in an instant which means no more obsolete forms.

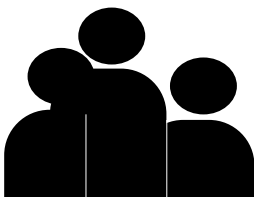
Plain Cut-Sheet Paper

With the rising costs of paper, using one media type often enables organizations to order in bulk and receive quantity discounts. And with the QMS print system, different types of cut-sheet media can be loaded into one print system for various types of forms, reducing the workload of the printer operator.

INCREASED EFFICIENCY

Improved Productivity

Printer operators, whether in a small office or large data center, spend much of their time loading greenbar paper and pre-printed forms. With intelligent forms stored on the QMS print system, PlanetPress increases worker efficiency and eliminates the additional manpower costs of operating line printers.



Shared Resources

PlanetPress allows the QMS print system to function as both a forms printer and a high-speed departmental print system. This means the entire office can use the printer for forms or general business documents such as memos, reports, presentations, and letters.

Automatic Page Collation

With PlanetPress multiple page forms can be printed and stacked in separate output trays right at the print system. The time consuming decollation step of multi-part forms—where the operator is required to pull apart forms and save hard copies for filing—can be eliminated.

Reduced Downtime

Storing PlanetPress forms on the QMS print system eliminates the need to keep an inventory of pre-printed forms. Because of this, the print cycle won't be interrupted because a particular form is not available.

And now, instead of waiting on new forms to be printed every time something changes, the customer will simply modify the existing PlanetPress form and store it right on the print system.

IMPROVED QUALITY

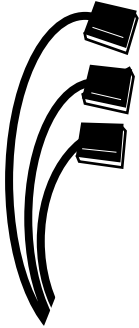
Improved Appearance

Most line printers only offer resolution up to 200 dpi. With QMS print systems, the customer can select up to 2400 dpi.

Paper is the face most businesses present to their customers. PlanetPress enables companies to improve their corporate image by maintaining a consistent, high-quality appearance of office forms including labels, invoices, purchase orders, and greenbar reports. Multi-part pre-printed and greenbar forms are often seen as poor quality documents. With PlanetPress, each page is an original, laser quality print that can serve as a master for duplication.

Ease of Transition

PlanetPress's unique design makes it easy to migrate from dedicated line printers and traditional data streams to laser printed forms and documents. Its open system design requires little or no change to the customer's system applications and only minimal host software for forms design.



Integration

Connect entire workgroups to the QMS print system over the network and improve the quality and appearance of office forms across the company. QMS print systems' automatic page spooling and high-speed processing means jobs are processed at the printer and not at the host.

MORE CONTROL

Freedom of Design

Unlike many electronic forms design packages, PlanetPress gives the customer total control over forms design and creation. No longer will the customer have to rely on a print shop to design, print, and ship critical business documents. With the click of a mouse the customer can create professional looking documents for every aspect of business.

Flexibility

The PlanetPress form's ease-of-use and flexibility means the forms are tailored to the forms users. As needs change so will the PlanetPress forms.



Scaleability

As a business grows, more and more QMS print systems can be added giving more users access to PlanetPress forms. Over time large businesses may even consider implementing the PlanetPress solution throughout the company—locally, nationally, and internationally.

Market Overview

The decline of impact printers can be attributed to the rise of electronic forms packages and the decreasing costs of high-quality laser print systems.

Xplor International, the Electronic Document Systems Association based in Torrance, Calif. surveyed its members about the systems they use to create, distribute, and print their business documents. About 175 large companies were surveyed representing a broad cross-section of industries including banking, insurance, and manufacturing.

The survey found the long-standing tradition of moving print jobs from impact printers to laser printers continues. Nearly half the respondents indicated laser printers account for as much, if not more, print volume than do data center impact printers.

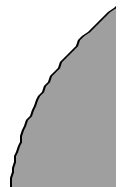
Revenue for Print-On-Demand applications by these organizations is listed below.

1997 Print-On-Demand Revenue by Application

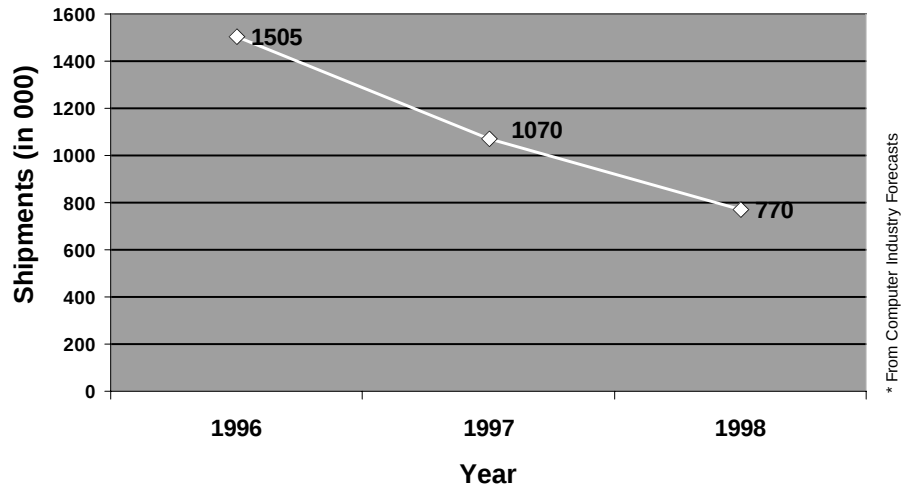
■ B/W High-Speed 42%

■ Color Copiers/Printers 36%

■ Production Color 22%



Forecasts Shipments of Impact Printers



When looking at the electronic forms market, it's important to realize the percent of market share that forms-based printing occupies. One of the strongest indicators businesses are moving away from preprinted forms and impact printers is the decline of impact printer shipments during the last three years. From 1996 to 1998 the industry saw a 28 percent decrease in shipments, falling from just over a million units in 1996 to about 770,000 units in 1998. During that same time, shipments of laser printers increased 15 percent, from just over four million in 1996 to 11 million in 1998.

This decline does not mean businesses are necessarily adopting electronic forms printing solutions, but as businesses look for ways to save time and money, these solutions offer a dependable, cost-effective alternative.

Target Markets

PlanetPress forms will fit into almost any market where line printers are found. Some key vertical markets are highlighted here.

Corporations spend enormous amounts of money each year on preprinted forms. Their dollars are spent purchasing, storing, handling, and discarding boxes and boxes of forms—not to mention maintaining and servicing line printers. Some companies hold steadfast to this technology while others view change as too radical or too difficult. Others view transition as just too expensive, especially in a market saturated with talk of enterprise software and company-wide systems. PlanetPress can replace these legacy systems—and legacy thinking—with cost-effective, modern printing technology.

However, not every one is qualified nor will benefit from the PlanetPress solution. Others will not be receptive to changing from their existing process.

In order to identify target markets and opportunities for the PlanetPress solution, it's not enough to know the features and benefits of the product. You must know who's printing, what they're printing, their business-flow procedures, their decision-makers, their systems, and their goals.



GENERAL BUSINESS PRINTING

Before considering specific target markets it's important to realize the broad, horizontal markets where PlanetPress will be effective. From daily reports to sales invoices almost every company relies on some type of general form printing to keep business running smoothly. Whereas a sales company may be able to function a while without its human resource benefits forms, it would hardly be able to go more than a day without its sales invoices and customer receipts.

General printing applications common to almost all business include:

- **Payroll** - one of the most consistent types of printing in any business that employs workers will be payroll. Weekly, bi-monthly, or monthly payroll processing is necessary to keep a business functioning properly. For payroll, PlanetPress eliminates the need for preprinted checks and puts the power of MICR printing in the hands of the payroll officers. The only requirement involved here may be the need for perforated stock or MICR toner.
- **Invoices** - if a business relies on selling or delivering its products, it will also rely on invoices to keep up with what is sold, the quantity, and to who it was sold. These documents will often include multi-part forms in order for the customer to have an actual receipt of the transaction. QMS print systems allow for the assembly of PlanetPress forms using different colors and weights of paper from different input trays.
- **Statements** - another constant of business is that of collecting for what products or services were sold. From utility companies to financial institutions, the billing statement may be the only interaction the

consumer has with the statement originator. PlanetPress's customized form design lets the customer add any type of message to a statement as well as logos and graphics. And they won't have to change the way they print.

The biggest factor in attracting customers within these general printing environments will be the need to improve processing time, enhance quality, and reduce overall printing costs. PlanetPress's on-demand forms generation combined with the speed and quality of QMS print systems is an ideal fit.



BANKING AND FINANCIAL MARKETS

One of the most fast-paced mission-critical uses of preprinted forms is printing in the banking and financial industries. From check processing to record keeping, these institutions rely on preprinted business forms on a daily basis. In this highly-regulated and customer service-driven industry, it's also important for these organizations to promote a professional image in every aspect of business.

Common applications include:

- Loan processing
- Securities investing
- Quarterly statements
- New account applications
- Transaction validation
- Check processing
- MICR check printing

Printing Environment

The banking and financial market is typically characterized by two distinct printing environments on both a centralized and branch level. First, there are likely to be several legacy print systems scattered among the front office where the main activity is customer interaction. Typical applications here will be new account, loan, and check processing as well as report generation as done by customer service representatives.

Within this same organization there is likely to be at least one room filled with line printers performing the company's "back office" printing including daily activity reports, customer statements, and payroll. These printers are using preprinted forms, checks and greenbar or graybar paper and are usually maintained by a printer operator.

Who to Contact

Local branches of larger banking and financial institutions probably won't have the authority to make decisions regarding technology issues, including that of printing. Many of these offices will standardize on the same software and hardware their central office uses in order to be consistent. Decision makers within these environments will include the CTO or MIS director usually located at a main office.



HEALTH CARE AND MEDICAL INDUSTRIES

It's safe to say that many hospitals and larger medical facilities function a lot like small cities or communities. With a distinct organizational layout, these medical facilities are often made of many different departments functioning as one entity. For example, the food service organization of a hospital may never know exactly what the emergency department is doing, but both may have to order various supplies from the same shipping office. With so many separate organizations within a single hospital, the opportunities are endless for forms printing.

On a smaller scale, the local doctor's office or medical clinic performs many of the same functions. Just like a hospital must maintain patient records, so must the smaller doctors' offices. Here again lies an opportunity for forms printing.

Common medical forms applications include:

- Patient records
- Admission applications
- Departmental communication
- Transfer orders
- Prescription/medication orders
- Regulatory documents
- Insurance claims

Printing Environments

It's important to keep in mind not everyone in the healthcare market will be printing. One might think the ER admissions clerk would print mounds of forms and documents. However, that job is often limited to data entry and insurance processing. Hospitals and medical offices will often share a single print system per floor or per department, providing a prime market for PlanetPress's printer-based forms.

Storing forms on the QMS print system means whenever a department wants to print—whether it be the nurses' station or the X-Ray room—a trip to the printer to change the forms is not required.

Specific Opportunities for Health Care Forms

- Finance office - statements, billing
- Legal office - insurance claims, regulatory documents
- Front desk - admissions, patient relations
- Nurses stations - medication/patient status reports
- Human resources - employee records

Who to Contact

Hospitals and health care organizations often involve teams of people studying solutions and making decisions. In one instance, a focus team was put together to study how to improve printing at a major midwestern medical center. It's important to find these teams and team leaders when approaching this market.



MANUFACTURING AND DISTRIBUTION

With the increase in Manufacturing Resource Planning software, many of today's manufacturing and distribution preprinted forms are generated from a common application. This resource planning software often tracks inventory, order administration, and demand fulfillment, keeping a just-in-time inventory of many mission-critical parts. Terminals and legacy print systems for these applications can be found on almost every level of business.

Common manufacturing and distribution applications include:

- Manufacturing resource planning reports
- Invoices
- Parts/Supply lists
- Employee scheduling
- Shipping lists
- Pick lists
- Tracking forms
- Inventory management forms
- Departmental communication forms
- Distributed forms
- Human resources

Not all manufacturing facilities and distribution centers will use enterprise resource software, but almost all will have the need for the forms applications mentioned above.

Printing Environment

The manufacturing and distribution industry is another market that can be divided into two distinct printing environments. The “clean floor” within the manufac-



turing and shipping industry is typically comprised of administrators and office tasks away from actual production operations. Here the focus is business-critical functions such as financial reports, human resources, marketing, and development.

The “dirty floor” often includes direct contact with the customer’s product including production, shipping, and storage. This environment will have the strongest need for invoices, shipping labels, pick lists, and tracking forms.

Distributed printing throughout a company is often a necessity as distribution and warehouse centers are located across the country. As a central office takes orders or drives production, this information will have to be filtered down to the right location in the form of invoices, shipping lists, production schedules, and tracking documents. This information is often downloaded to a computer terminal or can be sent directly to the printer from an office located hundreds of miles away.

Who to Contact

The manufacturing industry often using company-wide software and hardware systems for business-critical applications. In this case, the CTO or MIS director will need to be contacted. However, in distribution situations where warehousing is involved, each warehouse may have its own way of handling forms processing. Be sure to check each level of business for a direct contact to the technology decision-making process.



INSURANCE

The insurance industry accounts for a significant portion of the total growth in implementations of electronic forms printing. The two major areas of development are in claims management and policy generation. With the majority of these business functions being handled by a field agent, remote printing of forms, letters, settlements, and checks is a growing requirement for most major insurance companies.

Electronic and print-on-demand forms as well as laser print systems are gaining popularity in this industry due to their multifunctional capabilities. As a cost-effective way to print or copy physical pages of insurance documents, these printers allow agent-level printing of critical document forms at the point and time of need.

Inundated with volumes of paper, the insurance industry offers opportunities for electronic forms processing in the areas of:

- Life and casualty policies
- Health and auto claims
- Check disbursement records
- New customer accounts
- Distributed printing

Printing Environments

PlanetPress and QMS print systems will allow customer service representatives to quickly access insurance claims information and to print demand copies of data for review either by field agents, the customer or other remote users. This local printing environment, along with the large back office applications at the central office level, account for almost two-thirds of all the printing in this industry.

Traditionally the field agent and the customer may have to wait days for their policy to be prepared by the central office. The customer would then have to review the

policy or specific forms and return them to the insurance agent. Now, these agents are able to print draft copies of policies at the local level and make any necessary changes as the customer looks on. This is achieved by storing the typical policy layout and information on the QMS print system and merging it with the customer-specific information. This process not only saves money, it saves valuable time.

Who to Contact

Like bank branches, the local field offices for insurance companies probably will not have the authority to make decisions about forms and printing technology. These decisions are left to CTOs and MIS directors residing at central offices.

Creating & Using PlanetPress Forms

A few easy steps is all it takes for users to have a continuous supply of laser-quality forms.

CREATING AND USING “INTELLIGENT FORMS”

Unlike traditional electronic forms packages, PlanetPress for QMS Print Systems gives users an easy way to create and modify forms based specific business requirements. A graphical user interface (GUI) supplied with PlanetPress allows the customer to draw and place objects directly on a form template. This approach to forms design lets the customer instantly visualize what the form will look like and allows any necessary changes to be made to the form immediately.

PlanetPress allows for variations in both page layout and design. Users can select from a number of features when creating their forms including:

Layout options:

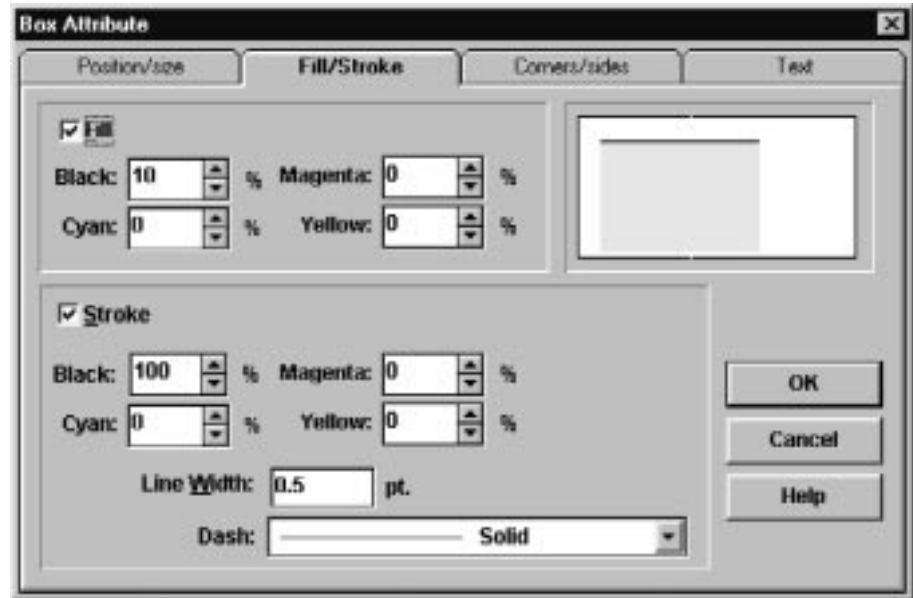
- **Duplex:** two-sided printing reduces paper expenses and the amount of total pages to keep track of
- Special job and header pages
- Page numbering
- Offset printing for three-hole punch
- Collation for special job attachments on the printer instead of by hand



Page design options:

- **Graybar support:** the same conceptual look as greenbar paper except it uses translucent shades of gray to form bars. Bars can be adjusted in width and can be positioned horizontally or vertically on the page. Pages can be framed with a border, and margins can be adjusted for each job
- **Watermarks:** PlanetPress can simulate a watermark as a graphic or logo if saved as part of the form. Watermarks can be placed on specific pages of multi-part forms
- **Logos:** corporate logos and graphics can be imported

Easy-to-use graphical design tools allow users to customize box shapes, shading, and borders as well as define the size and style of text.



Basic Forms Templates

Before any data or graphical elements can be added to the form, the basic format for the document must be created. This format or template can include dynamic areas for specific information such as “item number,” “quantity,” “description,” “price totals,” “date,” etc. Forms may also have static areas such as the business address and phone number. These areas are created using special, easy-to-use design tools provided in the on-screen design package and are often in the form of boxes and columns.

Any PostScript font available to the customer can be used to create the form template. Some types of barcodes are also available for use. Because the customer has total control over form creation, conditions for the imported data can be set. For example, the customer can set parameters for the form so that 8-point Helvetica fonts on the original application are imported as 12-point Times fonts. Graphics and logos can be manipulated the same way.

Customers have the ability to place boxes, lines, and text on a form based on the information needed. In this example, the customer will be formatting a statement.

[illegible]

Along with choosing fonts, the customer can define the shapes and sizes of text and data boxes as well as their shading and borders. This is particularly important on invoices and statements where static data is usually contained in a shaded area.

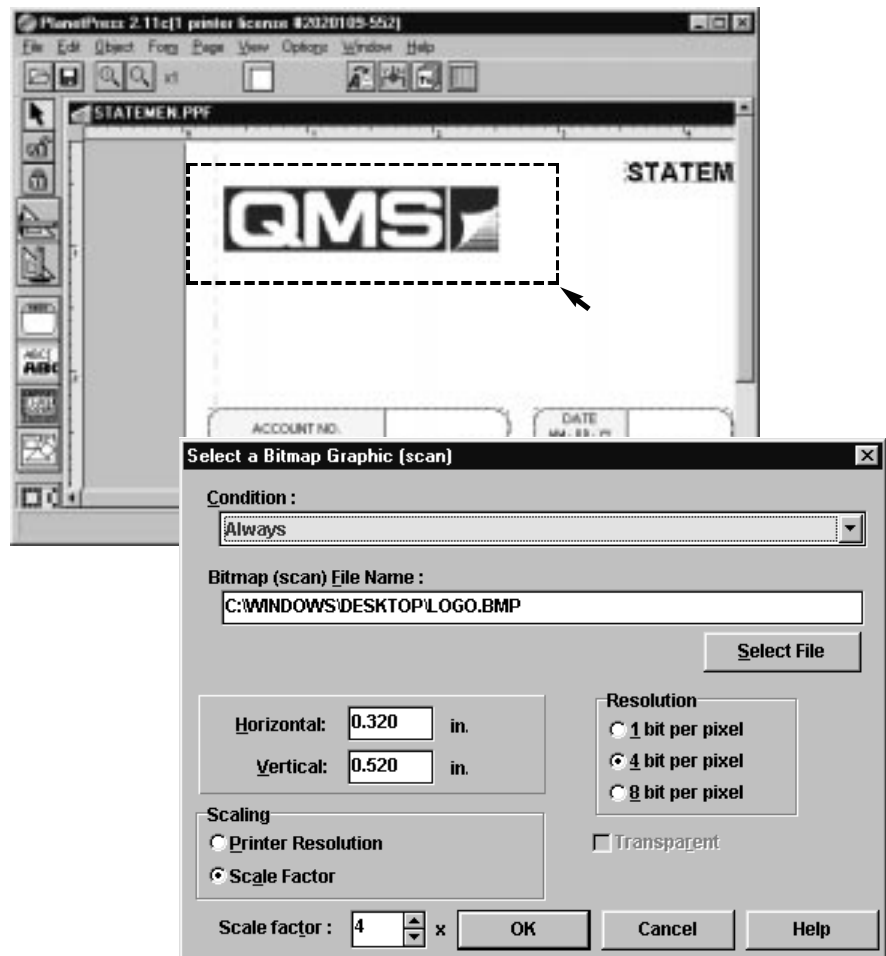
Logos and graphical elements give the statement from the previous page a personalized, professional look.

The screenshot shows a software window titled "STATEMEN.PPF" containing a form template for a "STATEMENT". The form includes a "QMS" logo in the top left corner. Below the logo, there are several input fields for account information, including "ACCOUNTING", "DATE", "NAME", "OF", "NAME", "OF", "DATE", "OF", and "ACCOUNTING". A "Security-Greetings" button is also present. The form features a large table with columns for account details: "NAME", "ID", "DATE", "ADDRESS", "PHONE", "FAX", "E-MAIL", "CD", and "ADD". A smaller table on the right side of the form has columns for "NAME", "ID", and "ADD". The form is designed with a professional, personalized look.

Including Graphics and Logos

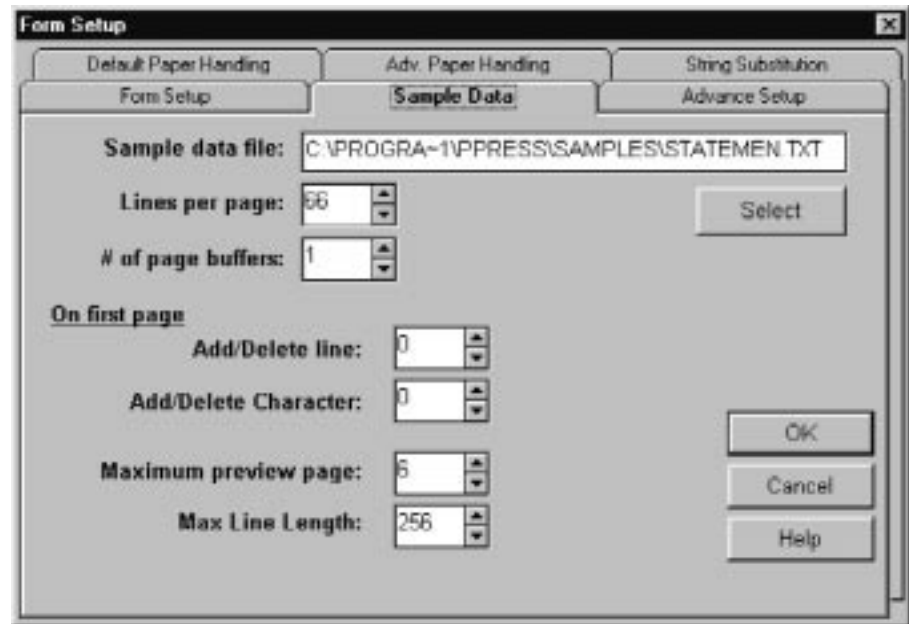
Once the form template has been designed with the appropriate text and data boxes, the customer will want to achieve just the right “look” by adding graphics and logos. Graphical images or logos imported to PlanetPress must be encapsulated PostScript (.eps) or bitmap (.bmp) files or come from the PostScript driver’s “*print to file*” option. Common applications that produce EPS or BMP file formats are:

- CorelDraw® 4.0 and 5.0 exported .EPS file
- Microsoft® WinDriver *print to file* (from most software running under Windows)
- QMS PostScript Level 2 driver for Windows® *print to file* (from most software running under Windows)
- Windows standard bitmaps (*.BMP)



After logos are created in a design or Windows program, they must be imported to the PlanetPress form. The customer selects the location on the form where the logo will be placed and then imports the logo from its file folder or location.

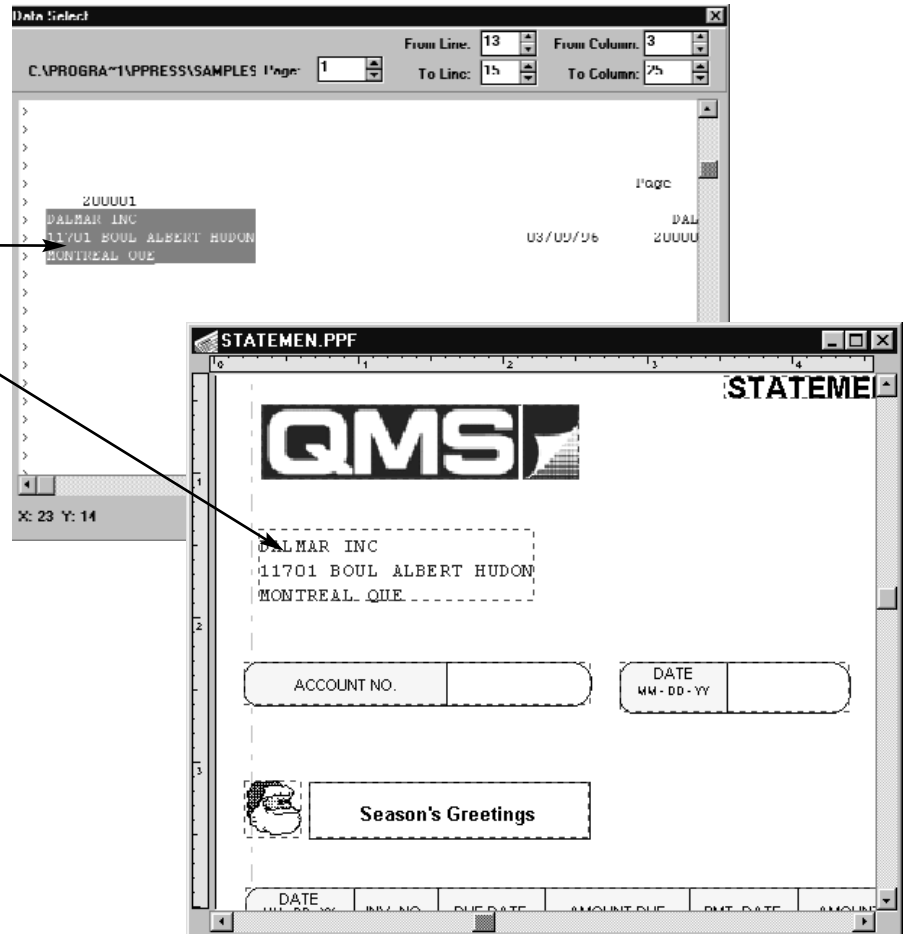
“Defining” the sample data file field tells the form where to retrieve data and what to do with it.



Importing Data

PlanetPress software incorporates a typical data stream from a customer's current application and merges it with a PlanetPress-developed template. This data can be in the form of a simple DOS program or can be based on popular office applications such as Microsoft Excel® or Word. It can also be imported from legacy applications using Xerox XES and UDK data streams. When designing the template, it is important that the customer tell the form where to pull the data from and where to place it on the page. This can be done by defining a path from the original application data to the form template as shown above.

The customer will define certain areas of the original application (as shown in the in top figure) to correspond to locations on the actual PlanetPress form (shown in the second figure).



Simple drag and click functions allow users to place specific fields of information from the original file in the text and data boxes created on the form template. The data selected can include all or part of the original application material and can be placed in several different locations on the PlanetPress form. As the customer adds information to these fields, the form template will be modified to reflect these changes at the printer.

NOTE: The customer will not be able to see the form during everyday printing applications. Viewing the form can only be done when creating a new form or modifying an existing document.

Compile Form

Destination

- ☐ PlanetFax
- ☐ PlanetImage
- ☒ Printer Hard Disk
- ☐ Printer Flash Memory
- ☐ Printer Memory
- ☐ Host Computer

This form will be compiled for the printer hard disk. This is the preferred solution since the form will reside inside the printer permanently. You will only send the data with the proper form calling instruction.

To use this form prepend data with:
 %IPS-Adobe
 (FORMNAME) run FORMNAME
 ... actual data ...

and send it to the printer (for automatic prepend on network,Novel, UNIX, VMS, etc see manual)

Printer

☐ Default Printer: (Currently ...)

☒ Specific Printer: magicolor 2 w/Optional on \\Network 3-11 server\\mg

☐ Host File: Q:\CLIENTS\PPRESS\BIJCON\ETATC.PS

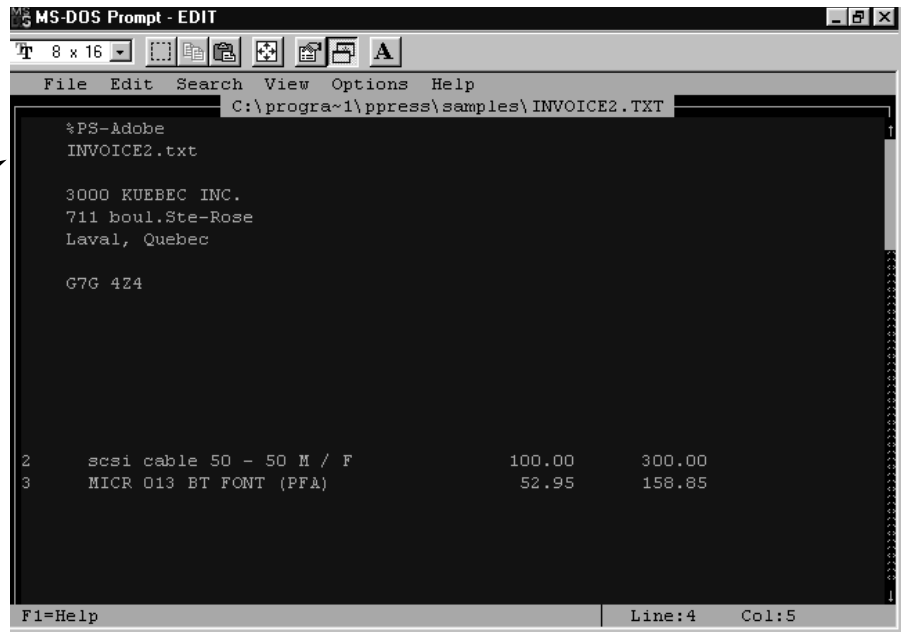
Select

OK Cancel Help

Compiling the Form

Once the customer has created the form, defined where the data is to be placed within it, and any established any action the form is to take regarding the data, the PlanetPress form must be downloaded to the QMS print system. The compile screen, shown above, will display any QMS print systems that have been installed. The customer must select where to store the form within the specified print system (i.e. on the hard disk). The customer will receive a set of commands that must be attached to the original document file in order for the PlanetPress form to format the data.

A document header at the beginning of the original application file lets the QMS print system know the data needs to be merged with the PlanetPress form. The customer simply edits their file, adds the header at the top of the document, and prints the file. The intelligent form takes over to assemble the data.



```
MS-DOS Prompt - EDIT
C:\progra~1\ppress\samples\INVOICE2.TXT

%PS-Adobe
INVOICE2.txt

3000 KUEBEC INC.
711 boul.Ste-Rose
Laval, Quebec

G7G 424

2      scsi cable 50 - 50 M / F      100.00      300.00
3      MICR 013 BT FONT (PFA)      52.95      158.85

F1=Help      Line:4      Col:5
```

Printing Forms

Once the form has been sent to the QMS print system, it is always “loaded” and available to print professional laser-quality documents from any of the original applications. With the prepended document command attached to the original file, the user simply sends the job to the printer like he would any other. The intelligent form resident on the print system will recognize the header and begin assembling data and graphics on on the form.

PlanetPress & QFORM Software Comparison

PlanetPress for QMS Print Systems provides more complete control over forms processing than QMS' previous forms packages.

Prior to the release of PlanetPress for QMS Print Systems, QMS launched another electronic forms software package designed to provide turnkey replacement of line printers and preprinted forms. QMS QFORM was developed with the same concept as PlanetPress, however QFORM is limited in its ease-of-use, design capability, and its “intelligence” when assembling forms.

Because of the functional similarities of these products, it's important to realize the competitive and complementary nature of their respective designs.

In brief:

- PlanetPress is intended for reengineered forms applications and for environments where line printers and preprinted forms need to be replaced. With only simple commands the PlanetPress forms will take legacy print stream data and assemble it complete with graphics, logos, and specific data. PlanetPress also allows the customer to design and modify their own forms through a graphical display.
- QMS QFORM is not a forms design tool and is generally limited to replacing preprinted forms or greenbar reports without reengineering the forms content or layout.

PlanetPress and QFORM are both printer-resident PostScript-based forms packages. PlanetPress relies on self-running PostScript programs or “intelligent forms” to manage formatting. A PlanetPress program runs until the specific job that started it is completed. QFORM is a PostScript program whose behavior is modified by print stream parameters telling it how to format the data it sees. QFORM runs continually until parameters in the data stream tell it to stop.

PlanetPress uses printer-resident intelligent forms to house the form, form format information and form elements such as graphics and images. An intelligent form, created by PlanetPress' Windows-based graphical software tool, is a file which can be easily downloaded to the hard disk of a PostScript printer. A single line command at the beginning and end of the application print stream starts and stops the formatting carried out by the intelligent form.

QFORM is comprised of three printer-resident files. These are the QFORM[®] application program, QFORM job file, and the QFORM control file. Combinations of these files are used in the process of rendering output from QFORM. The functions of the above three items are “compiled” into the PlanetPress intelligent form.

The QFORM application is a PostScript language program which relies on the QFORM job file or job request print string to identify the user's job descriptions, site definitions or site customizations. The QFORM application is initiated through a job request string. The application is dependent upon this string or the QFORM job file for the parameters, commands, and options necessary to run a QFORM job. The QFORM control file is used to identify the QFORM job file and identifies the job request string format.

Obviously, PlanetPress and QFORM use the term “form” in different contexts. A PlanetPress form is a intelligent PostScript overlay that includes self-contained instructions for interpreting the print stream and the images that are placed on the page. A “QFORM” is a non-intelligent PostScript overlay that relies on job files and/or job request strings for processing instructions. A QFORM job is constructed from the individual components resident on the printer during processing. Individual forms, logos, and signatures are incorporated based on the instructions in the QFORM job description.

Basic QFORM and PlanetPress Functional Similarities include:

- PostScript-language, printer-based, forms printing enablers
- Capable of supporting multiple-part, two-sided forms
- Customizable with special function patches and hooks
- Supports existing ASCII line printer streams with little or no change to the application
- Compatible with all forms and image design packages that produce PostScript language output

Key Features of PlanetPress

- Runs on any PostScript printer with a hard drive
- Offers intelligent forms processing — actions can be “keyed” to the contents of the print stream
- Automatic PostScript Level 2 forms caching support
- Provides a Windows-based front-end and visual editor for:
 - Intelligent form development
 - Forms previewer
 - Optional fax through PlanetFax

- Optional imaging through PlanetImage
- Graybar forms support
- Xerox DJDE support

Key Features of QFORM

- Runs on any QMS Crown® Print System with a hard drive
- Graybar forms support
- Support of ANSI carriage controls and line indexes
- Control files and job definitions are simple ASCII text format
- Supports batch-oriented job streams
- Xerox DJDE support
- Can be customized for specific applications or customers through QMS product refinement engineering

PlanetPress & QFORM Product Positioning

PLANETPRESS PRODUCT POSITIONING

PlanetPress is the answer to advanced laser-printed forms requirements for multi-purpose applications. Most specifically, positioning should be within environments where forms needs exceed the scope of basic line printer replacement enablers such as QFORM. Additionally, PlanetPress should be considered more than a printer-resident forms application as it also incorporates a powerful software tool for forms creation.

PlanetPress is ideally suited for companies developing new forms applications. Target markets are varied and include banking, insurance, health care, manufacturing, and general offices. Here, “advanced forms development” or “beyond line printer simulation” are the key selling terms.

PlanetPress Base Feature Set

- Intelligent print stream processing, which supports the extraction, reformatting, and repositioning of text on the output page. This processing capability also allows the dynamic selection of the number or types of forms to be produced or images, logos or signatures to be overlaid. The ability to customize forms output by “keying” on information within the print stream makes PlanetPress ideal for unique new applications.

Early adopters and technology leaders will be attracted to PlanetPress' ability to go beyond line printer simulation and more fully expose the capabilities of intelligent PostScript page printers.

- Automatic PostScript Level 2 forms caching improves performance when using images, including all page frames, and signatures and fixed-size logos. The performance of print jobs depends to a large degree on the complexity of the PostScript that generates the image of the form. Without caching, the printer would compile the form image for each page of the job thus introducing unnecessary processing delays for frequently used forms.

Using automatic caching, the form image is compiled only once and is used on all subsequent pages thus yielding performance increases when this form is reused.

- A Windows utility for intelligent form application output and optional image file (CCITT G3 fax, CCITT G4, and tiff formats). This point-and-click program allows the generation of intelligent forms (including intelligent forms resources, intelligent forms conditional parameter actions) from Encapsulated PostScript (EPS) files. This utility is a graphical code generator and frees the forms programmer from hard coding the application file. In addition to code generation, the utility also allows a WYSIWYG forms preview capability.

QFORM AND LEGACY APPLICATIONS

QFORM is the answer to basic line printer replacement requirements for data processing applications. Most specifically, positioning should be within mainframe environments as a replacement for line printers using pre-printed forms. Here, line printer “simulation” is a key selling term.

QFORM Base Feature Set

- Replacement of listings printed on greenbar paper with the new “graybar” paradigm. QFORM allows easy migration of all continuous-form line printer listings via the built-in graybar forms generator. It allows the forms designer to maintain the look and feel of current reports by generating page frames and formats to fit output specifications on the fly.

Parameter support includes line width, bar height, gray bar shading, page and gray bar borders, page numbering, cpi-based character spacing, and font selection.

- Support for ANSI carriage controls and line indexes. Mainframe-based line printer data streams typically contain this control information. Translation of this information is vital to seamless integration of replacement solutions. The QFORM ANSI option supports the translation of Column-1 ANSI carriage controls—the most widely used ANSI format for line printer applications. QFORM's support of line

indexes allows it to interpret index numbers at the beginning of a line making it possible to instruct the printer to perform special processing (such as mapping an input line to a different output position)—this provides the added support of user-defined channel skips.

- Construct and maintain QFORM control files and job definitions with any text editor. These ASCII data are downloaded to the printer as-is, requiring no intermediate compilation. This is convenient to mainframe system programmers as it gives them the freedom to front-end QFORM with their standard mainframe terminals accessing text editing and (ASCII) printing applications.
- Batch-oriented allowing it to process contiguous, unrelated jobs in the same print stream. This feature is relevant to environments that demand rapid support of ad hoc job definition or forms changes. Further, as QFORM job definition and control files are ASCII text-based, they can be quickly created and downloaded to the printer moments after a “job change request” has been issued.

THE PLANETPRESS ADVANTAGE

- ✚ Beyond line printer replacement — customized intelligent forms
- ✚ Windows-based application development — multi-purpose product positioning
- ✚ Non-proprietary — compatible with any QMS hard disk-equipped PostScript printer
- ✚ Good support — Designed for QMS print systems
- ✚ Cost-effective — forms creation eliminates obsolete forms and allows for form changes on the fly

THE QFORM ADVANTAGE

- ✚ Simulation of legacy “Big Iron” batch line printer forms applications
- ✚ Graybar support
- ✚ Platform-independent application development — supports ad hoc changes
- ✚ Full support — PRE; CRC; FLIX service plans
- ✚ Price — for smaller companies and those on a tight budget, the price point may be attractive

Pricing

PlanetPress for QMS Print Systems allows QMS to remain competitive in the electronic forms development market.

PlanetPress is an “intelligent forms” software package designed by Canada’s Objectif Lune for QMS print systems. It is sold by license agreements like many software products provided by QMS.

Each printer utilizing PlanetPress must have an individual user license specific to the printer. PlanetPress divides print systems into two categories: 1 to 36 ppm printers and 37 to 55 ppm printers with subcategories for 1, 5, 10, 25, 50 and 100 license sites.

Situations will arise that require licenses to be sold that do not match the subcategory descriptions. An example of this type transaction is when a customer wants only to purchase four licenses. The subcategories available offers two options: 1) Offer the customer four individual one printer licenses totalling \$4,000, or 2) a five-license package for \$3,750. Another example is a customer requiring 30 licenses. Options available are 1) Fifty printer licenses for \$21,500, or 2) Twenty-five printer licenses for \$12,750 and five one-printer licenses for \$5,000, resulting in a \$17,750 sale.

QMS will not carry an inventory of the PlanetPress software. Instead, upon order, the product(s) will be shipped directly from Objectif Lune to the distributor or customer site. This will allow expedient service upon an order being placed.

If need be, QMS will assist its Business Partners when installing the print systems and PlanetPress software and will offer the first level of support through the Customer Response Center as with any QMS product. Objectif Lune will offer the second level of support through their customer support system.

OBJECTIF LUNE PLANETPRESS PRODUCT INFORMATION

*ALL PRICES ARE LIST PRICES AND ARE IN U.S. DOLLARS

PRINTER REQUIREMENT

ANY POSTSCRIPT-ENABLED QMS CROWN PRINT SYSTEM WITH HARD DISK

**SOFTWARE LICENSE LIST PRICES
& QMS PART NUMBERS****PRINTER LICENSES FOR 1-36 PPM PRINT SYSTEMS**

PLANETPRESS 1 PRINTER LICENSE	\$1,000	2600593-901
PLANETPRESS 5 PRINTER LICENSE	\$3,750	2600593-902
PLANETPRESS 10 PRINTER LICENSE	\$6,000	2600593-903
PLANETPRESS 25 PRINTER LICENSE	\$12,750	2600593-904
PLANETPRESS 50 PRINTER LICENSE	\$21,500	2600593-905
PLANETPRESS 100 PRINTER LICENSE	\$36,500	2600593-906

PRINTER LICENSES FOR 37-55 PPM PRINT SYSTEMS

PLANETPRESS 1 PRINTER LICENSE	\$2,000	2600594-901
PLANETPRESS 5 PRINTER LICENSE	\$7,500	2600594-902
PLANETPRESS 10 PRINTER LICENSE	\$12,000	2600594-903
PLANETPRESS 25 PRINTER LICENSE	\$25,500	2600594-904
PLANETPRESS 50 PRINTER LICENSE	\$43,000	2600594-905
PLANETPRESS 100 PRINTER LICENSE	\$73,000	2600594-906

FORMS DEVELOPMENT PRICES

A FORM IS DESCRIBED AS FOUR SIMILAR PAGES OR TWO DISSIMILAR PAGES DRIVEN BY THE SAME DATA STREAM. THE FORM CAN HAVE UP TO TWO CONDITIONS. FOR FORMS THAT DO NOT FIT THESE CONDITIONS, QMS WILL QUOTE A PRICE.

SELLING CHANNEL

QMS BUSINESS PARTNER OR NATIONAL RESELLER, INTEGRATOR

FORMS DEVELOPMENT PLATFORM

ANY PLATFORM THAT SUPPORTS APPLICATIONS PRODUCING ENCAPSULATED POSTSCRIPT OUTPUT; RECOMMENDED FORMS DEVELOPMENT APPLICATION IS CORELDRAW!

**PRINTER APPLICATION
DEVELOPMENT PLATFORM**

WINDOWS 3.x, WINDOWS NT, WINDOWS 95

HOST/CLIENT PLATFORM

ANYTHING THAT PRODUCES ASCII LINE PRINTER DATA STREAM; RECOMMENDS IBM MAINFRAME/MINIHOST PLATFORM BUT CAN BE ADAPTED FOR LAN OR STANDALONE APPLICATIONS

NETWORK

ANYTHING THAT CAN ROUTE ASCII LINE PRINTER DATASTREAMS TO ANY CROWN PRINTER PORT

COMPRESSION TYPE

CCITT GROUP 4 AS SUPPORTED BY POSTSCRIPT LEVEL 2

QMS QFORM PRODUCT INFORMATION

*ALL PRICES ARE LIST PRICES AND ARE IN U.S. DOLLARS

PRINTER REQUIREMENT	ANY QMS CROWN PRINT SYSTEM WITH HARD DISK (AND POSTSCRIPT ENABLED)
SOFTWARE LICENSE PRICES	\$999/PRINTER
FORMS DEVELOPMENT PRICES	\$350/SIMPLE FORM \$600/COMPLEX FORM \$50/MINOR ALTERATION (10 LINES OR LESS) OF EXISTING FORM \$150/MAJOR ALTERATION (MORE THAN 10 LINES) OF EXISTING FORM \$250/LOGO, SIGNATURE, SIMPLE GRAPHIC
CONSULTING FEES	\$150/HOUR
SERVICE PRICING	BASED ON PRINTER SERVICE AGREEMENT
SELLING CHANNEL	VAR, INTEGRATOR
FORMS DEVELOPMENT PLATFORM	ANY PLATFORM THAT SUPPORTS APPLICATIONS PRODUCING ENCAPSULATED POSTSCRIPT OUTPUT
PRINTER APPLICATION DEVELOPMENT PLATFORM	ANY PLATFORM THAT SUPPORTS APPLICATIONS PRODUCING ASCII LINE OUTPUT
HOST/CLIENT PLATFORM	ANYTHING THAT PRODUCES ASCII LINE PRINTER DATA STREAM; RECOMMEND IBM MAINFRAME/MINI VIA AXIS OR I-DATA.
NETWORK	ANYTHING THAT CAN ROUTE ASCII LINE PRINTER DATA STREAMS TO ANY CROWN PRINTER PORT
COMPRESSION TYPE	CCITT GROUP 4 AS SUPPORTED BY POSTSCRIPT LEVEL 2



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QMS Product Information
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